## **CLAIMS**

1. A process for the preparation of a compound of formula (7) or salts thereof:

$$X \xrightarrow{R^1} OH OH OH$$

$$R^2 \xrightarrow{R^3} OH OH OH$$

5 wherein

R<sup>1</sup> represents a hydrogen or a hydrocarbyl group

R<sup>2</sup> represents a hydrogen or substituent group

R<sup>3</sup> represents a hydrogen or a hydrocarbyl group

X represents a hydrogen or substituent group

10

which comprises

a) cyanating a compound of formula (1):

wherein Y represents a halo group, preferably Cl or Br; P<sup>1</sup> represents hydrogen or a protecting group, and W represents =O or –OP<sup>2</sup>, in which P<sup>2</sup> represents hydrogen or a protecting group,

to give a compound of formula (2):

b) reducing the compound of formula (2) to give a compound of formula (3):

20

c) coupling the compound of formula (3) with a compound of formula (4):

to give a compound of formula (5):

$$X \longrightarrow \mathbb{R}^1$$
  $OP^1$   $OP^1$   $OP^2$   $OP^2$ 

d) when W represents -OP<sup>2</sup>, deprotecting and then oxidising the compound of formula (5) to give a compound of formula (6):

5 and

15

20

e) subjecting the compound of formula (5) when W represents =0, or compound of formula (6) to ring-opening, and removal of any remaining protecting groups, to give a compound of formula (7) or salts thereof:

10 2. A process according to Claim 1 for the preparation of a compound of formula (7) or salts thereof:

wherein

 $\mathsf{R}^1$  represents an alkyl group, such as a  $\mathsf{C}_{1\text{-}8}$  alkyl group, and preferably an isopropyl group

R<sup>2</sup> represents an aryl group, preferably a phenyl group

R³ represents an aryl group, preferably a 4-fluorophenyl group

X a group of formula –COZ, wherein Z represents -OR<sup>4</sup>, in which R<sup>4</sup> represents an alkyl, preferably a methyl or ethyl, group, or –NR<sup>5</sup>R<sup>6</sup>, wherein R<sup>5</sup> and R<sup>6</sup> each independently represent H, alkyl, or aryl, and preferably R<sup>5</sup> is H and R<sup>6</sup> is phenyl

which comprises

a) cyanating a compound of formula (1):

wherein Y represents a halo group, preferably CI or Br; P<sup>1</sup> represents hydrogen or a protecting group, and W represents =O or -OP<sup>2</sup>, in which P<sup>2</sup> represents hydrogen or a protecting group,

5 to give a compound of formula (2):

b) reducing the compound of formula (2) to give a compound of formula (3):

c) coupling the compound of formula (3) with a compound of formula (4):

$$X \xrightarrow{R^1} 0$$

$$R^2 \xrightarrow{R^2} 0$$

to give a compound of formula (5):

$$X \xrightarrow{R^1} OP^1$$
 $QP^1$ 
 $QP^1$ 

d) when W represents -OP<sup>2</sup>, deprotecting and then oxidising the compound of formula (5) to give a compound of formula (6):

and

20

10

e) subjecting the compound of formula (5) when W represents =O, or compound of formula (6) to ring-opening, and removal of any remaining protecting groups, to give a compound of formula (7) or salts thereof:

- 3. A process according to Claim 2 wherein R<sup>1</sup> is an isopropyl group, R<sup>2</sup> is a phenyl group, R<sup>3</sup> is a 4-fluorophenyl group and X is a -CO<sub>2</sub>Me, -CO<sub>2</sub>Et or -CONHPh group
- 4. A process for the preparation of a compound of formula (2):

which comprises cyanating a compound of formula (1):

- wherein Y represents a halo group, preferably CI or Br; P<sup>1</sup> represents hydrogen or a protecting group, and W represents =O or -OP<sup>2</sup>, in which P<sup>2</sup> represents hydrogen or a protecting group.
  - 5. A process for the preparation of a compound of formula (3):

15

5

which comprises reduction of a compound of formula (2):

wherein  $P^1$  represents hydrogen or a protecting group, and W represents =0 or  $-OP^2$ , in which  $P^2$  represents hydrogen or a protecting group.

20

- 6. A process according to Claim 4 or Claim 5 wherein  $P^1$  represents a benzyl or a silyl group, and W represents =0 or  $-OP^2$ , in which  $P^2$  represents a methyl group
- 7. A process for the preparation of a compound of formula (5):

which comprises coupling the compound of formula (3):

5 with a compound of formula (4):

$$X \xrightarrow{R'} O$$

wherein

 $R^1$  represents an alkyl group, such as a  $C_{1-6}$  alkyl group, and preferably an isopropyl group;

10 R<sup>2</sup> represents an aryl group, preferably a phenyl group;

R<sup>3</sup> represents an aryl group, preferably a 4-fluorophenyl group;

X a group of formula –COZ, wherein Z represents -OR<sup>4</sup>, in which R<sup>4</sup> represents an alkyl, preferably a methyl or ethyl, group, or –NR<sup>5</sup>R<sup>6</sup>, wherein R<sup>5</sup> and R<sup>6</sup> each independently represent H, alkyl, or aryl, and preferably R<sup>5</sup> is H and R<sup>6</sup> is phenyl;

P<sup>1</sup> represents hydrogen or a protecting group, preferably a benzyl or silyl group; and W represents =O or -OP<sup>2</sup>, in which P<sup>2</sup> represents hydrogen or a protecting group, preferably OP<sup>2</sup> where P<sup>2</sup> is a methyl group.

## 8. A compound of formula (2):

20

wherein  $P^1$  represents hydrogen or a protecting group, and W represents =0 or  $-OP^2$ , in which  $P^2$  represents hydrogen or a protecting group.

9. A compound according to Claim 8 wherein P¹ is a protecting group and preferably
 25 W represents -OP², and more preferably P¹ and P² are different.

- 10. A compound according to Claim 9 wherein  $P^1$  is a benzyl or silyl group and W represents  $OP^2$  where  $P^2$  is a methyl group.
- 11. A compound of formula (3):

5

wherein  $P^1$  represents hydrogen or a protecting group, and W represents =0 or  $-OP^2$ , in which  $P^2$  represents hydrogen or a protecting group.

- 12. A compound according to Claim 11 wherein P<sup>1</sup> is a protecting group and preferably W represents –OP<sup>2</sup>, and more preferably P<sup>1</sup> and P<sup>2</sup> are different.
  - 13. A compound according to Claim 12 wherein P<sup>1</sup> is a benzyl or silyl group and W represents OP<sup>2</sup> where P<sup>2</sup> is a methyl group.
- 15 14. A compound of formula (5):

wherein

 $R^1$  represents an alkyl group, such as a  $C_{1-8}$  alkyl group, and preferably an isopropyl group;

20 R<sup>2</sup> represents an aryl group, preferably a phenyl group;

R<sup>3</sup> represents an aryl group, preferably a 4-fluorophenyl group;

X a group of formula –COZ, wherein Z represents -OR<sup>4</sup>, in which R<sup>4</sup> represents an alkyl, preferably a methyl or ethyl, group, or –NR<sup>5</sup>R<sup>6</sup>, wherein R<sup>5</sup> and R<sup>6</sup> each independently represent H, alkyl, or aryl, and preferably R<sup>5</sup> is H and R<sup>6</sup> is phenyl;

25 P<sup>1</sup> represents hydrogen or a protecting group; and

W represents -OP<sup>2</sup>, in which P<sup>2</sup> represents hydrogen or a protecting group.